AMENDMENTS TO THE CLAIMS

The original claims 1-27 erroneously included two claims numbered claim 20. For the sake of consistency, Applicants ask the Examiner to renumber the second claim 20 as claim 21, and then renumber original claims 21-27 as claims 22-28.

Please cancel claims 13-28, the non-elected claims, without prejudice or disclaimer. Please amend the claims as presented below. Also, add new claims 29-43 as presented below.

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1. (Currently amended) A ~~The~~ method of making a semiconductor comprising depositing a group II-group VI compound onto a substrate in the presence of nitrogen using sputtering to produce a nitrogen-doped semiconductor.

2. (Original) The method of claim 1 in which the nitrogen is in a gaseous form during the sputtering.

3. (Original) The method of claim 1 in which the group II-group VI compound is one or more compounds of the group zinc telluride, zinc selenide, zinc sulfide, mercury selenide, mercury telluride, mercury sulfide, cadmium sulfide, cadmium telluride, cadmium selenide, magnesium telluride, and magnesium selenide.

4. (Original) The method of claim 1 in which the sputtering is RF sputtering.

5. (Original) The method of claim 1 in which the sputtering is reactive sputtering.

6. (Original) The method of claim 1 in which sputtering step creates a layer of the doped group II-group VI compound that is larger than about 4 cm^2.

7. (Original) A method of making a photovoltaic cell comprising using sputtering to apply a back contact layer of group II-group VI compound to a substrate in the presence of nitrogen, the back coating layer being doped with nitrogen.

8. (Original) The method of claim 7 in which the nitrogen is in a gaseous form during the sputtering.

9. (Original) The method of claim 7 in which the group II-group VI compound is one or more compounds of the group zinc telluride, zinc selenide, zinc sulfide, mercury selenide, mercury telluride, mercury sulfide, cadmium sulfide, cadmium telluride, cadmium selenide, magnesium telluride, and magnesium selenide.

10. (Original) The method of claim 7 in which the sputtering is RF sputtering.

11. (Original) The method of claim 7 in which the sputtering is reactive sputtering.

12. (Original) The method of claim 7 in which sputtering step creates a layer of the doped group II-group VI compound that is larger than about 4 cm^2.

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Renumbered and cancelled)

22. (Renumbered and cancelled)

23. (Renumbered and cancelled)

24. (Renumbered and cancelled)

25. (Renumbered and cancelled)

26. (Renumbered and cancelled)

27. (Renumbered and cancelled)

35. (New) The method of claim 34 in which the remainder of the atmosphere is argon gas.

36. (New) The method of claim 35 in which the group II-group VI compound is one or more compounds of the group zinc telluride, zinc selenide, zinc sulfide, mercury selenide, mercury telluride, mercury sulfide, cadmium sulfide, cadmium telluride, cadmium selenide, magnesium telluride, and magnesium selenide.

37. (New) The method of claim 34 in which the group II-group VI compound is zinc telluride.

38. (New) The method of claim 34 in which the nitrogen-doped semiconductor is a p-type layer.

39. (New) The method of claim 34 in which the sputtering is reactive sputtering.

40. (New) The method of claim 1 in which the group II-group VI compound is zinc telluride.

41. (New) The method of claim 7 in which the group II-group VI compound is zinc telluride.

42. (New) The method of claim 1 in which the nitrogen-doped semiconductor is a p-type layer.

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43. (New) The method of claim 7 in which the nitrogen-doped semiconductor is a p-type layer.

28. (Renumbered and cancelled)

29. (New) A method of making a semiconductor comprising depositing a group II-group VI compound onto a substrate using sputtering to produce a nitrogen-doped semiconductor, wherein the sputtering is carried out in an atmosphere containing an amount of nitrogen within the range of from about 0.5 percent to about 3 percent.

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30. (New) The method of claim 29 in which the remainder of the atmosphere is argon gas.

31. (New) The method of claim 29 in which the group II-group VI compound is one or more compounds of the group zinc telluride, zinc selenide, zinc sulfide, mercury selenide, mercury telluride, mercury sulfide, cadmium sulfide, cadmium telluride, cadmium selenide, magnesium telluride, and magnesium selenide.

32. (New) The method of claim 29 in which the group II-group VI compound is zinc telluride.

33. (New) The method of claim 29 in which the nitrogen-doped semiconductor is a p-type layer.

34. (New) A method of making a photovoltaic cell comprising using sputtering to apply a back contact layer of group II-group VI compound to a substrate in the presence of nitrogen, the back coating layer being doped with nitrogen, wherein the sputtering is carried out in an atmosphere containing an amount of nitrogen within the range of from about 0.5 percent to about 3 percent.